

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
Product code : 12408382  
Catalog # : 25018XT3H447T

Frame : 447T Output : 250 HP (185 kW) Poles : 4 Frequency : 60 Hz Rated voltage : 575 V Rated current : 227 A L. R. Amperes : 1590 A LRC : 7.0x(Code H) No load current : 72.2 A Rated speed : 1784 rpm Slip : 0.89 % Rated torque : 736 ft.lb Locked rotor torque : 250 % Breakdown torque : 250 % Insulation class : F Service factor : 1.15 Moment of inertia (J) : 89.6 sq.ft.lb Design : B	Locked rotor time : 36s (cold) 20s (hot) Temperature rise : 80 K Duty cycle : Cont.(S1) Ambient temperature : -20°C to +40°C Altitude : 1000 m.a.s.l. Protection degree : IP55 Cooling method : IC411 - TEFC Mounting : F-1 Rotation <sup>1</sup> : Both (CW and CCW) Noise level <sup>2</sup> : 82.0 dB(A) Starting method : Direct On Line Approx. weight <sup>3</sup> : 2591 lb
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Output	50%	75%	100%	Foundation loads
Efficiency (%)	95.4	96.2	96.2	Max. traction : 3609 lb
Power Factor	0.72	0.81	0.85	Max. compression : 6200 lb

	Drive end	Non drive end
Bearing type :	6319 C3	6316 C3
Sealing :	Viton Oil Seal	Viton Seal
Lubrication interval :	7038 h	8569 h
Lubricant amount :	45 g	34 g
Lubricant type :	Mobil Polyrex EM	

### Notes

This revision replaces and cancel the previous one, which must be eliminated.

- (1) Looking the motor from the shaft end.
- (2) Measured at 1m and with tolerance of +3dB(A).
- (3) Approximate weight subject to changes after manufacturing process.
- (4) At 100% of full load.

These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.

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Customer : \_\_\_\_\_

### Thermal protection

ID	Application	Type	Quantity	Sensing Temperature
1	Winding	Thermostat - 2 wires	1 x Phase	155 °C

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# TORQUE AND CURRENT VS SPEED CURVE



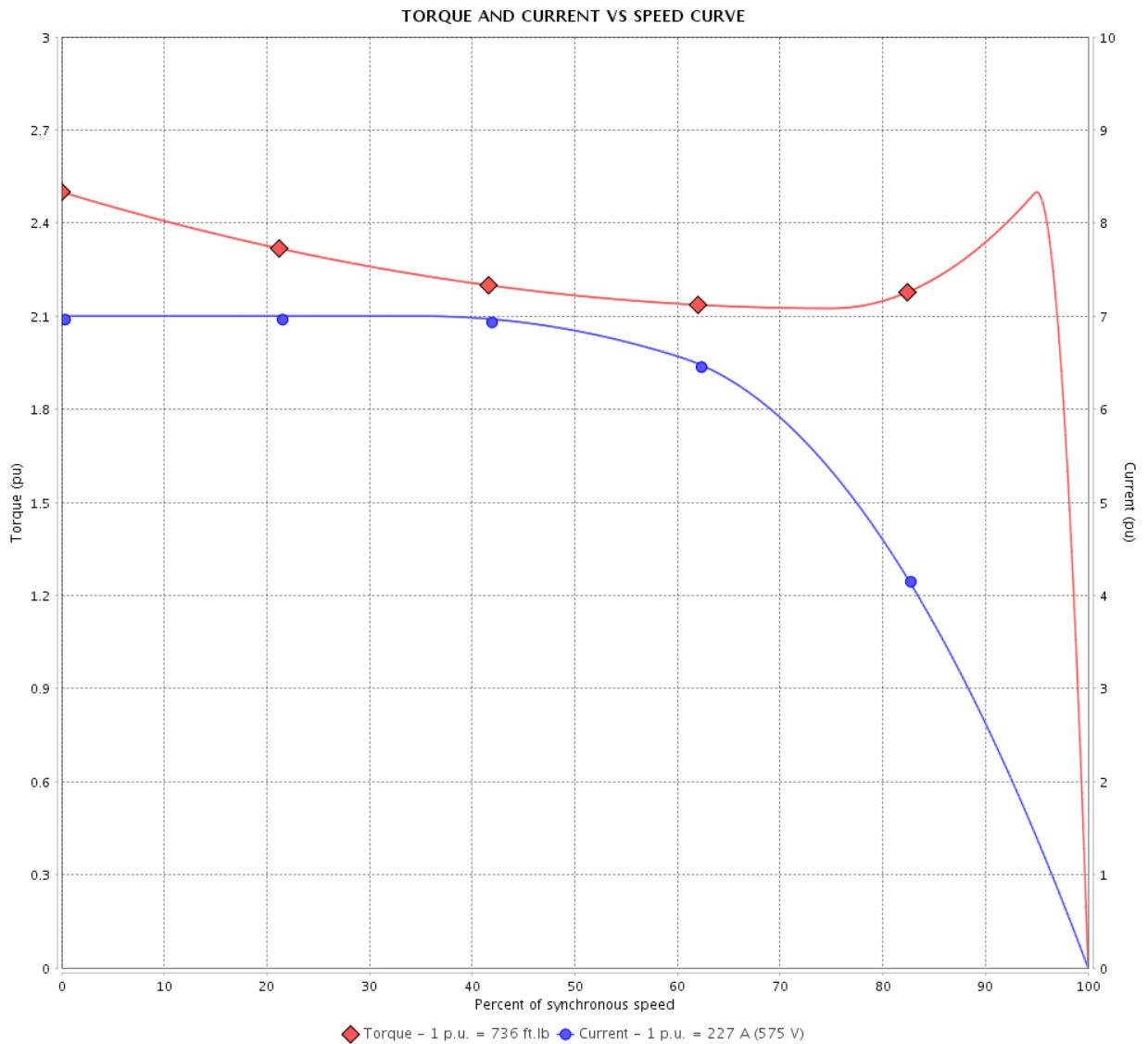
## Three Phase Induction Motor - Squirrel Cage

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Product code : 12408382

Catalog # : 25018XT3H447T



Performance : 575 V 60 Hz 4P

Rated current	: 227 A	Moment of inertia (J)	: 89.6 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 736 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.15
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1784 rpm	Design	: B

Locked rotor time : 36s (cold) 20s (hot)

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

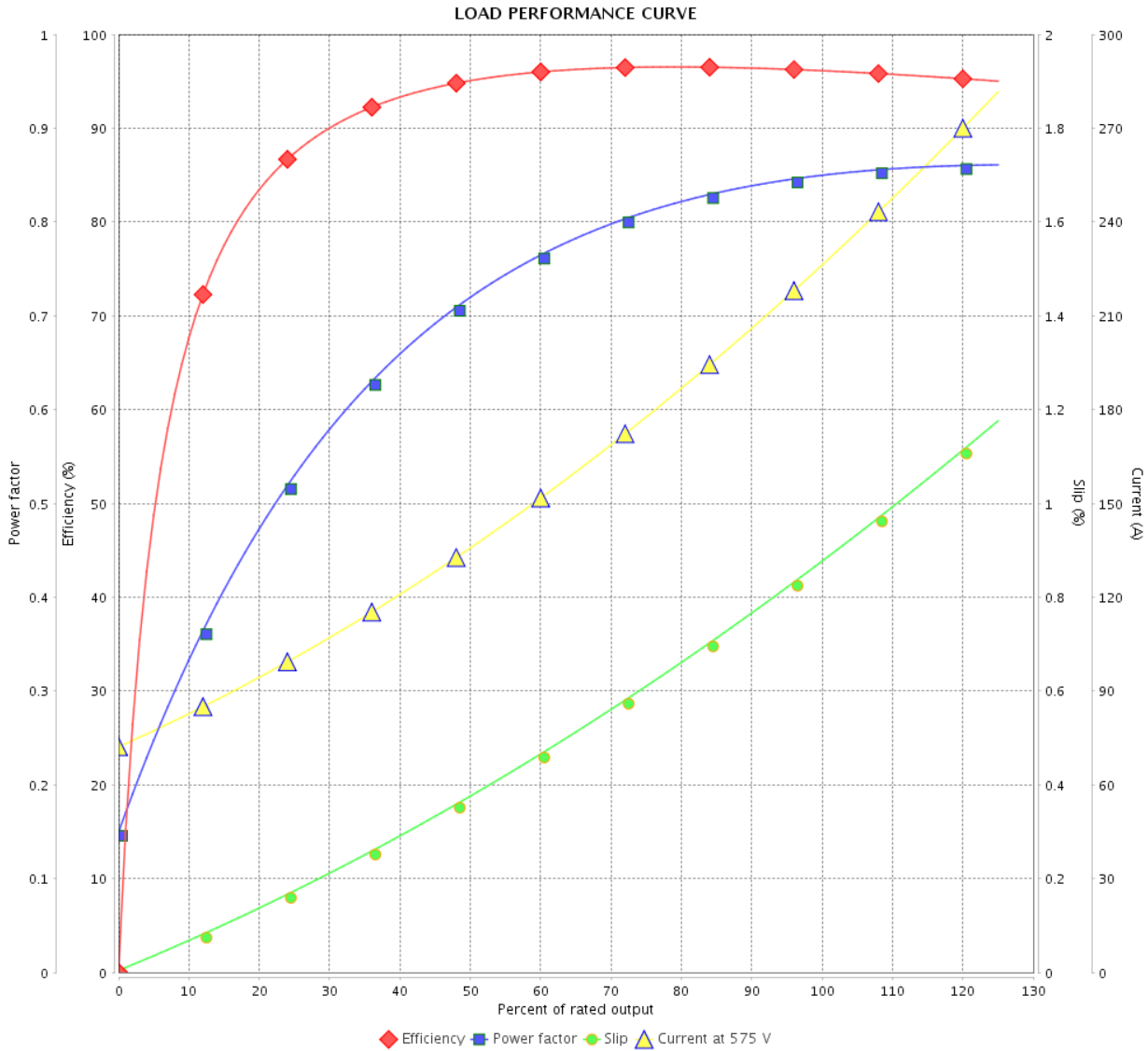


Customer :

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Performance : 575 V 60 Hz 4P

Rated current : 227 A  
 LRC : 7.0  
 Rated torque : 736 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 250 %  
 Rated speed : 1784 rpm

Moment of inertia (J) : 89.6 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

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LRC : 7.0	Duty cycle : Cont.(S1)
Rated torque : 736 ft.lb	Insulation class : F
Locked rotor torque : 250 %	Service factor : 1.15
Breakdown torque : 250 %	Temperature rise : 80 K
Rated speed : 1784 rpm	Design : B

Heating constant

Cooling constant

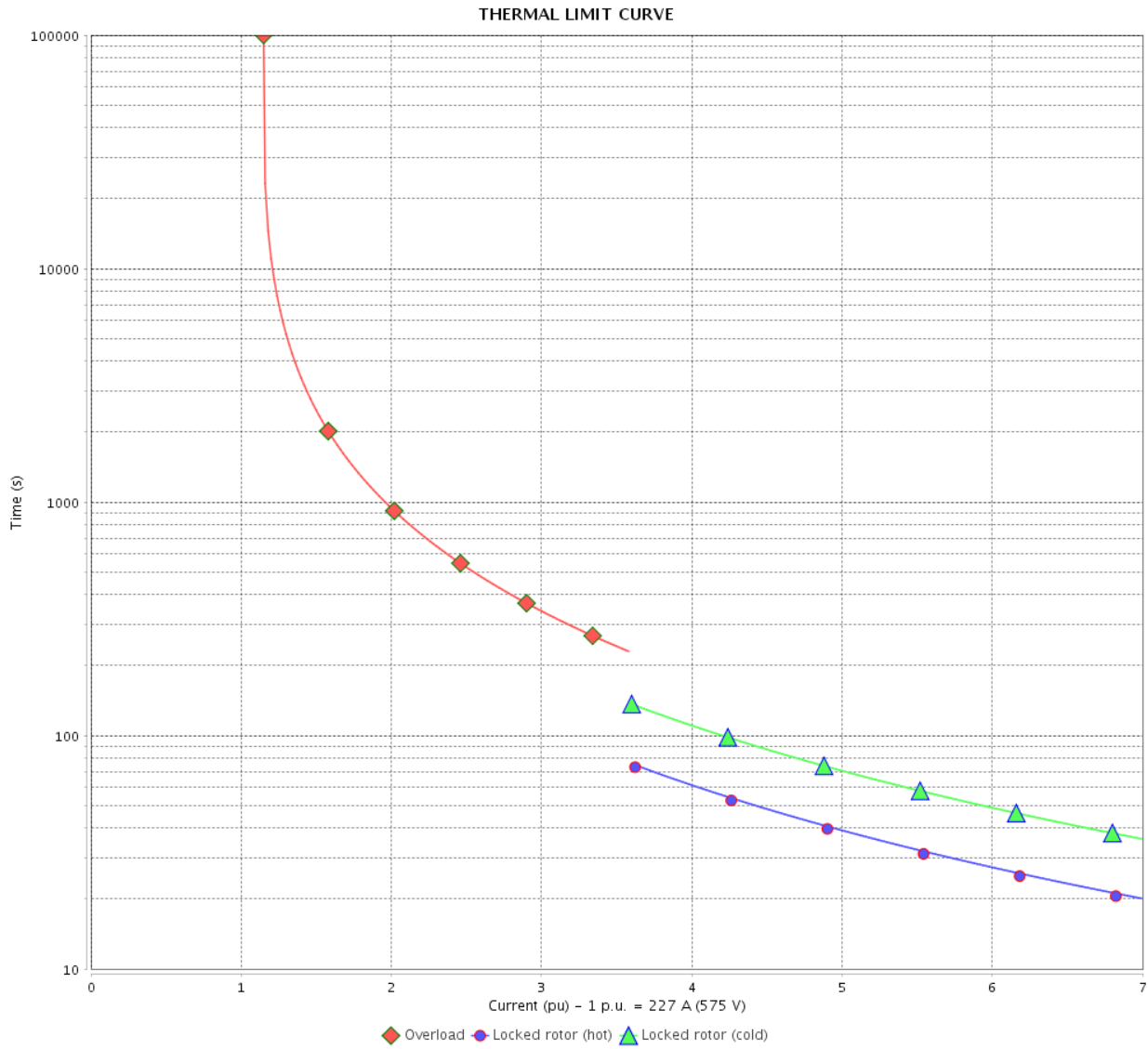
Rev.	Changes Summary	Performed	Checked	Date
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



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# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage

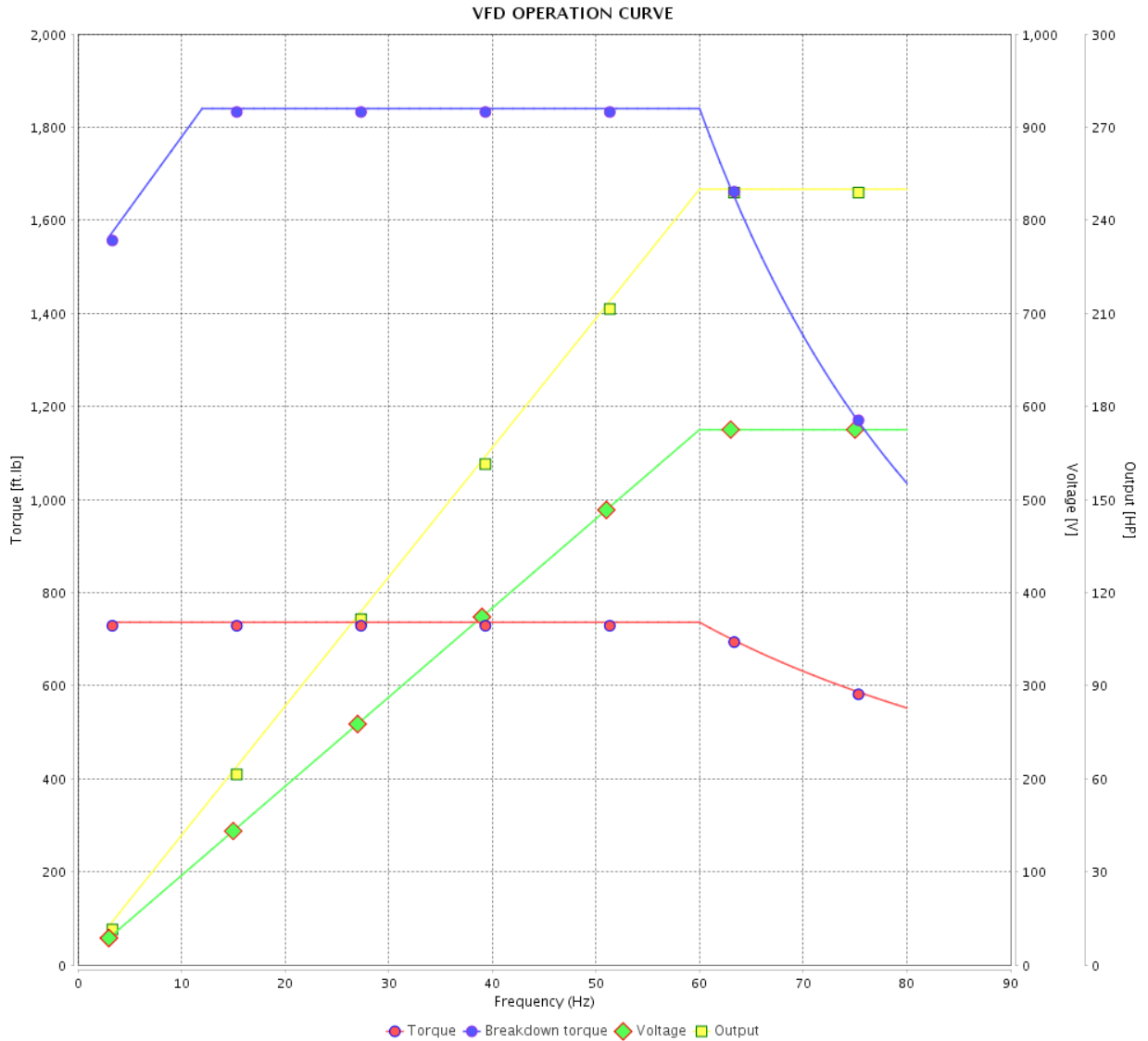


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Product line : NEMA Premium Efficiency Three-Phase

Product code : 12408382

Catalog # : 25018XT3H447T

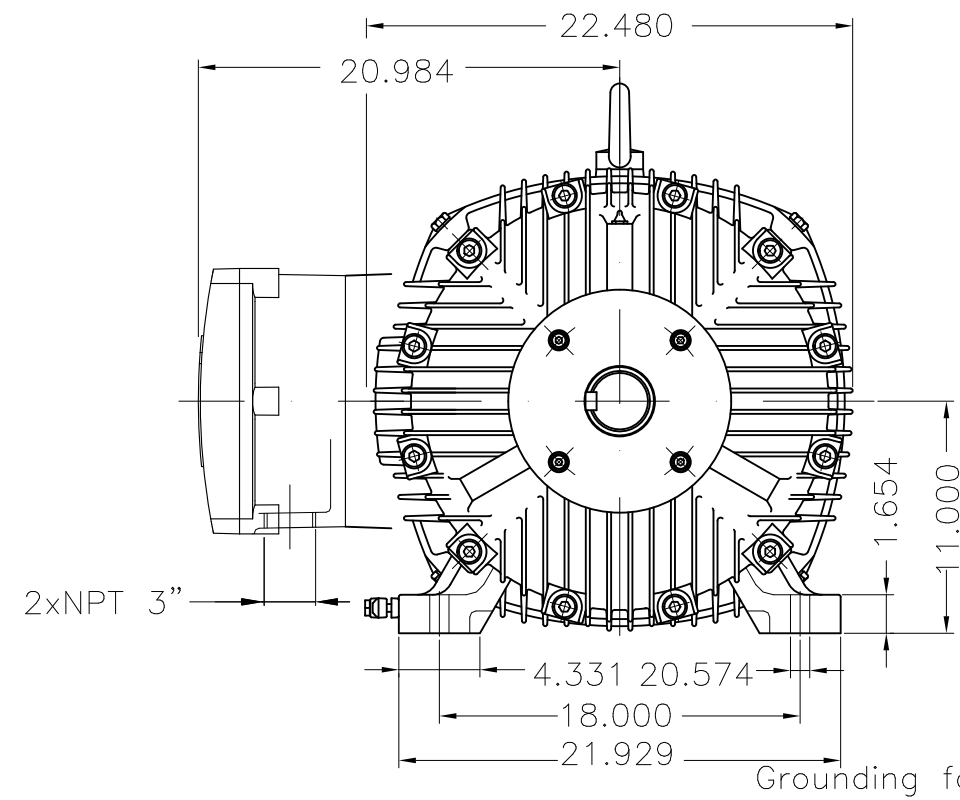


Performance : 575 V 60 Hz 4P

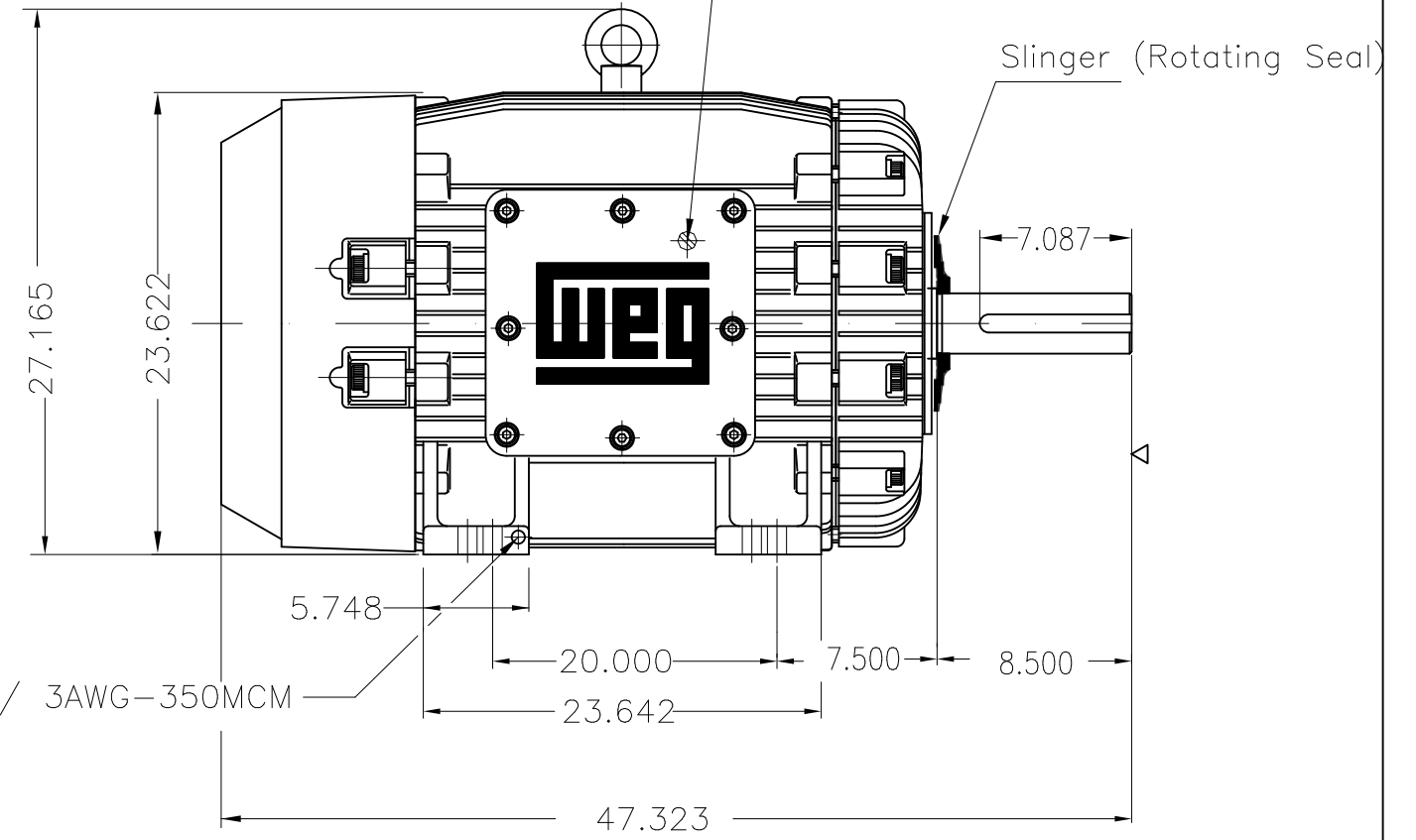
Rated current : 227 A  
 LRC : 7.0  
 Rated torque : 736 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 250 %  
 Rated speed : 1784 rpm

Moment of inertia (J) : 89.6 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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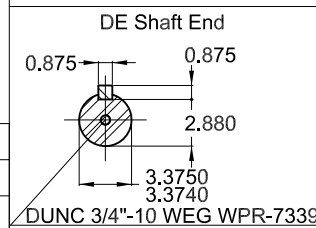
Grounding for leads 35-70 mm<sup>2</sup> / 1-2/0 AWG



Grounding for leads 25-185 mm<sup>2</sup> / 3AWG-350MCM

250 HP 04 Poles 60 Hz

A



Color RAL 5009  
 Painting plan 202P  
 Mounting B3R(D)

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR EXPLOSION PROOF PREM. EFF.					
CHECKED		FRAME 447T IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering				

**PREVIEW**  
 WDD



SHEET 1 / 1





**W21X NEMA**  
**CC029A Premium**

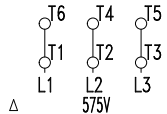
*Inverter Duty Motor  
 Severe Duty*



TEMP CODE T3C  
 CSA/UL: Class I - Div. 1 - Groups C and D  
 CSA: Class II - Div. 1 - Groups F and G  
 CSA: Class I - Zone 1 - IIB  
**EXPLOSION PROOF MOTOR**  
 FOR USE ON VPWM VFD 1000:1VT, 2:1CT, 1.0SF, T3C, AMB 40°C.

HX250504NPBB447T  
 MADE IN BRAZIL  
 12408382

PH 3	FR 447T	HP(kW) 250(185)		Hz 60
V 575		A 227		RPM 1782
NEMA NOM. EFF. 96.2%			INS CL F $\Delta$ T 80 K	IP55
PF 0.85		DUTY CONT.		CODE H
ENCL. TEFC		SF 1.15	SFA 261	
AMB 40°C		DES B		



→ 6319-C3(45g)      MOBIL POLYREX EM  
 → 6316-C3(34g)      7038 h

ALT 1000 m.a.s.l      2674 Lbs